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K2 TX/MAM Server

User Manual

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1 Grass Valley Product Support

Contact information: http://www.grassvalley.com/support/contact

U.S Technical Support: +1 800-547-4989 or +1 530 478 4148 or E-mail: Please use our online form

All other countries Technical Support: +800 80 80 20 20 or +33 1 48 25 20 20 or E-mail: callcentre@grassvalley.com

FAQ: http://grassvalley.novosolutions.net/

Training: https://grassvalley.csod.com/LMS/catalog/Main.aspx?tab_page_id=-67&tab_id=6

Documentation can be found on the grass valley website > Resources > Smart Playout Center.

2 About this document

This document applies to TX/MAM release 2.4.

Please refer to the Dell documentation for Safety Instructions.

Do not use the Dell Quick Installation Guide provided with the Dell CD-ROM package. This guide includes instructions for using the OpenManage software CD-ROM to install an operating system, which is not necessary on the Grass Valley product.

3 Credentials

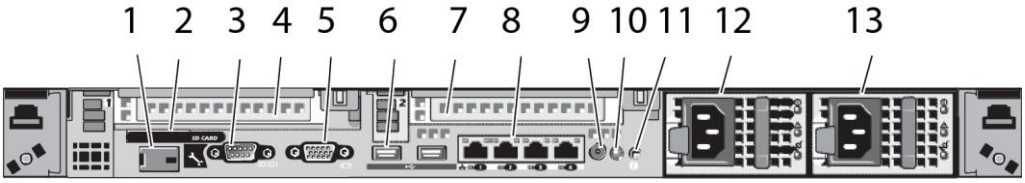
The default credentials TX/MAM are:

From command line: User: root Password: proot123 Via the web interface: User: sysdba Password: masterkey

4 Indicators and status information

Please refer to the Dell documentation for an explanation of indicators and status information.

5 The K2 TX/MAM Server Backplane



TX/MAM back panel.

Item	
1	iDRAC6 Enterprise port (n/a)
2	VFlash media slot (n/a)
3	serial connector
4	PCIe slot
5	video connector
6	USB connectors
7	PCIe slot
8	Ethernet connectors Gb1-4
9	system status indicator
10	system status indicator
11	system identification button
12	power supply
13	power supply

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6 Configuring the TX/MAM servers' IP-addresses

The TX/MAM servers do not use their own IP-address for communication with the Smart Playout Center applications and servers, as to keep this IP-address available for the backup TX/MAM server. Instead, a virtual IP-address is used.

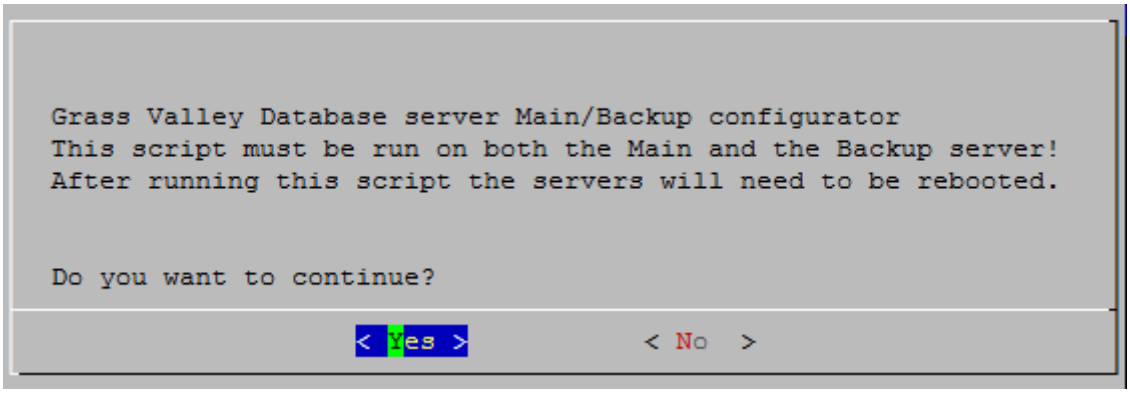
- Configure the TX/MAM servers' real IP-addresses, for example using Yast.
- Configure the TX/MAM servers' virtual IP-address as described in the next paragraph.

7 Configuring the TX/MAM main and backup database server and virtual IP-address

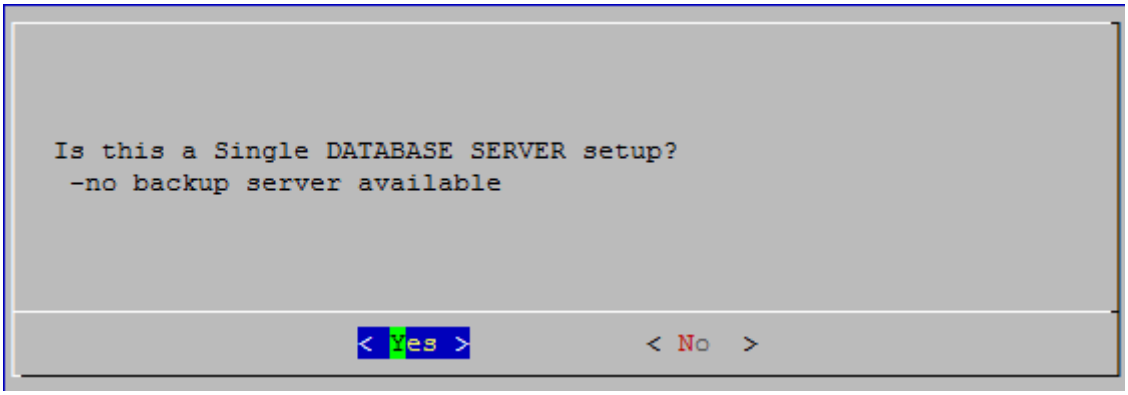
The main server automatically writes its backups to the backup server, and vice versa.

- To configure the TX/MAM server, run the script db_configure:
  `# /system/db_configure <enter>`

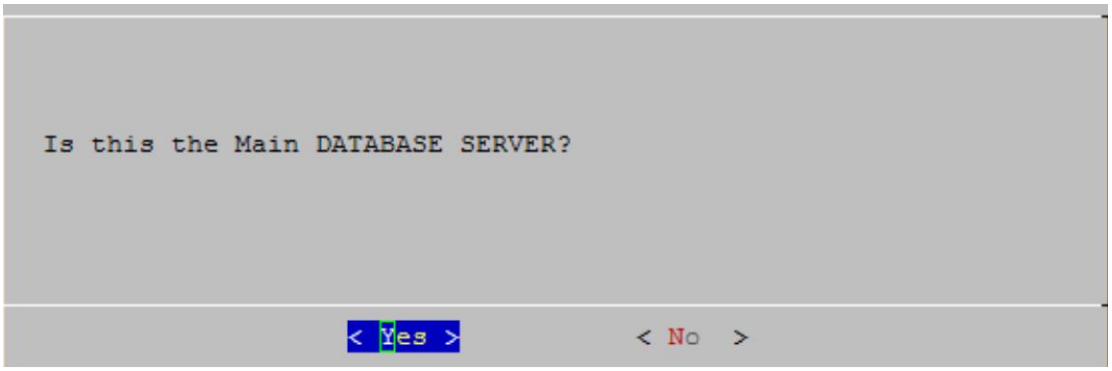
  Now follow the screens below.


Grass Valley Database server Main/Backup configurator
This script must be run on both the Main and the Backup server!
After running this script the servers will need to be rebooted.
Do you want to continue?
< Yes >
< No >

- Click **Yes** to continue, **No** to cancel.

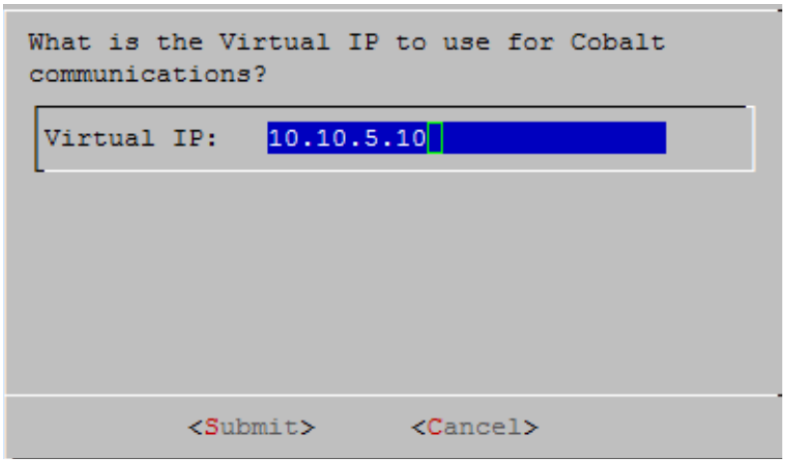


- Click **No**.

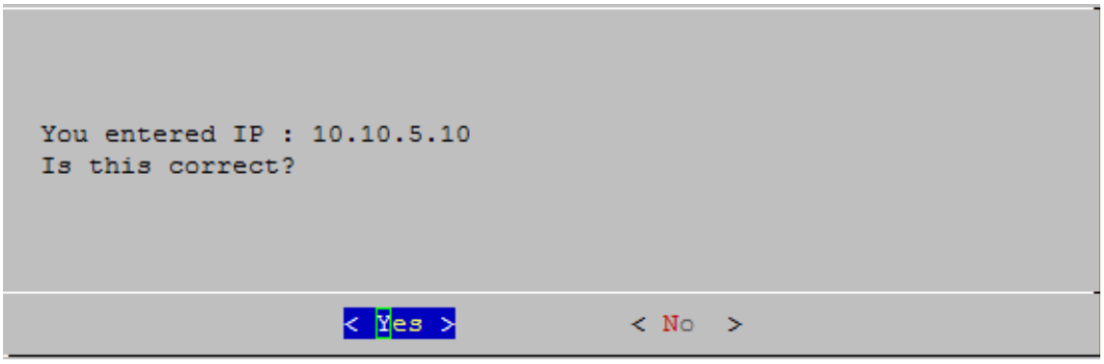


- Click **Yes** if you are configuring the main database server, **No** to configure the backup database server.

The examples below and above describe configuration of the main database server. Both servers need to be configured:



- Enter the TX/MAM servers' virtual IP-address.
  Keep in mind that you need to specify the same virtual IP for the main and backup database server. Note that the IP-address in the picture above is an example.
- Click **Submit** to continue, **Cancel** to cancel.



- Click **Yes** to continue, **No** to cancel.
  Note that the IP-address in the picture above is an example.

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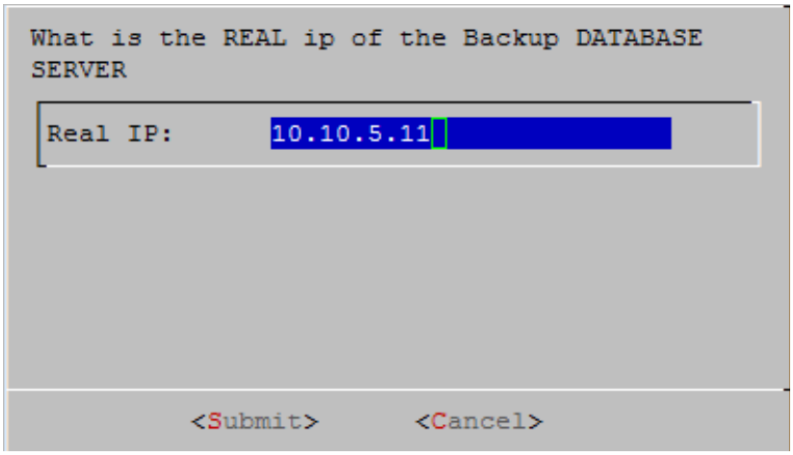

- Enter the database server's real IP-address.
  Note that the IP-address in the picture above is an example.
- Click **Submit** to continue, **Cancel** to cancel.
- Now reboot the server.

- Repeat these steps for the second server.
  Use the same virtual IP-address for the main and backup server.

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8 Configuring time mode for the TX/MAM video player

On both the TX/MAM servers, set the time mode for the TX/MAM video player. The default is Relative. To change to absolute:
Edit the file **/usr/local/apache2/application/configs/txmam.ini**.

```
[production]
VideoPlayer.timeMode=Absolute
```

On both the TX/MAM servers, edit the file **/system/objects/cobassets/bin/seq_br*X*.ini** (X= 0 to 3)
Example:

```
[SequencerSettings]
BladeIniFile=/system/blade.ini
BroadcastSet=BROADCAST0
AppNiceParameter=-n20
SendFormatCounter=1
NoDuplicateOptOutBlock=
PreloadTime(sec)=30
SendScriptCueCommand=0
TimeCodeStartType=Absolute
TimeCodeNoTCEnd=
```

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9 Configuring time settings

On the TX/MAM servers, edit the file **/etc/ntp.conf**.

Go to:

```
## Outside source of synchronized time
##
## server xx.xx.xx.xx      # IP address of server
```

Edit the following line: `## server xx.xx.xx.xx     # IP address of server`

- Remove the # hashes.
- Specify the NTP-server's IP-address.

Example:

```
## Outside source of synchronized time
##
server 192.33.96.102           # IP address of server
```

- To activate, run the following command: `service ntp restart`

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10 TX/MAM server network ports

FTP	Default ports 20 and 21
SSH/SCP	Default port 22
Samba	Default ports 137,138 and 139
Cobalt database access	Default port 5020
Web based interface	Default port 80
TX/MAM hardware player	Default ports 5000 and 5001

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11 Manually configuring the TX/MAM main and backup server

On the active (main) TX/MAM server, the file **/system/STATUS** should contain:
`active=yes`

On the standby (backup) TX/MAM server, the file **/system/STATUS** should contain:
`active=no`

- Via samba (windows network share) the STATUS file can be found here: **\\<TX/MAM server IP-address>\delta\STATUS**
- When working from command line: **/system/STATUS**

To change a TX/MAM server from main to backup:

- On the main server, edit and safe the file **/system/STATUS**:
  Change `active=yes` to `active=no` and save the file.
- Run the `/system/nexusproc restart all` command.

To change a TX/MAM server from backup to main:

- On the backup server, edit and safe the file **/system/STATUS**:
  Change `active=no` to `active=yes` and save the file.
- Run the `/system/nexusproc restart all` command.

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12 Failover, manual backup and restore of the TX/MAM servers

An automatic backup is created and restored from the active to the standby database every hour by the `/etc/cron.backup/cob-bak` and `/etc/cron.restore/cob-restore` commands.

Workflow	**Main TX/MAM server**	**Backup (standby) TX/MAM server**
Normal situation	The main server is active and writes a backup to the backup server every hour.	The backup server is inactive. Database backups are written from the main to the backup server.
Creating a manual backup from the main server (usually not needed).	`# /etc/cron.backup/cob-bak <enter>`	The database backup is written to the backup server.
Failover from the main to the backup TX/MAM server		

Deactivate the main server.	Deactivate the main server first:
	
	Stop all services:
	`# /system/nexusproc stop all`
	
	Edit the file **/system/STATUS**, set yes to no:
	`active=no`
		The backup server is inactive.

Restore the database on the backup.	The main server is inactive.	Run the script: `/etc/cron.restore/cob-restore`

Activate the backup (standby) server.		Edit the file **/system/STATUS**, set no to yes:
		`active=yes`
		
		Start all services:
		`# /system/nexusproc start all`

The backup server is now active.		The backup server is active.

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Going back from the backup to the main TX/MAM server		
The backup server is active.	The main server is inactive.	The backup server is active and writes a database backup to the main server every hour.
To manually create a backup from the backup server (if no backup of the database is available on the main).	The database backup is written to the main server.	To manually create a backup on the backup server and write to the main: `# /etc/cron.backup/cob-bak <enter>`
Restore the database on the main.	`/etc/cron.restore/cob-restore`	

Deactivate the backup server.		Stop all services:
		`# /system/nexusproc stop all`
		
		Edit the file **/system/STATUS**, set yes to no:
		`active=no`

Activate the main.	Edit the file **/system/STATUS**, set no to yes:
	`active=yes`
	
	Start all services:
	`# /system/nexusproc start all`	

Normal situation.	The main is active.	The backup server is inactive. Database backups are written to the backup server.

13 Appendix: Changing an IP-address

After changing the playout nodes', TX/MAM or FTP-servers' IP-address, following adjustments need to be made:

13.1 After changing the IP-address of the playout nodes

1) Change the playout node's IP-address in the TX/MAM Channel settings.

13.2 After changing the virtual IP-address of the TX/MAM-servers

1) On the K2Edge nodes, in **/etc/hosts** adjust MAIN-DB. Specify the virtual IP of the TX/MAM servers.
   Example:

```
10.250.51.51 MAIN-DB
```

You can also set the IP-address of the TX/MAM server via the IP Manager.

2) On both the TX/MAM servers, in **/usr/local/apache2/application/configs/txmam.ini**, adjust `project_options.serverip`. Specify the virtual IP of the TX/MAM servers.
   Example:

```
project_options.serverip = "10.250.51.51"
```

3) On both the TX/MAM servers, in **/usr/local/apache2/application/configs/txmam.ini**, adjust `ingest.assetHostIp`. Specify the virtual IP of the TX/MAM servers.
   Example:

```
ingest.assetHostIp = "10.250.51.51"
```

4) To change the IP-address in the POC desktop shortcuts properties
   Right-click the POC icon on your desktop > **Properties** > **Shortcut**.
   In the Target field fill in the TX/MAM servers' virtual IP-address.

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13.3 After changing the IP-address of the FTP-server

1) On both the TX/MAM servers, in **/usr/local/apache2/application/configs/txmam.ini**, adjust:

`videoFtp.host` to the FTP-server IP
`videoFtp.user` to FTP-server user
`videoFtp.password` to FTP-server password
`videoFtp.path` to FTP-server path

Preferably adjust both the FTP and SMB-settings.

Example (SMB):

```
;Global
videoFtp.protocol = Smb


;Smb
videoFtp.Smb.user="delta"
videoFtp.Smb.password="delta"
videoFtp.Smb.host="10.250.51.51"
videoFtp.Smb.path="/system/objects/cobassets/media/browse/"
```

2) On the main TX/MAM server in **/system/objects/cobassets/bin/transfer_ftp.xml**, adjust the transfer metadata.

3) Then run the **/system/objects/cobassets/bin/set.sh** script.

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